



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,437	12/28/2001	Keith A. Riha	TRM TR000024 DIV	9561
32047	7590	05/12/2004	EXAMINER	
GROSSMAN, TUCKER, PERREALT & PFLEGER, PLLC 55 SOUTH COMMERICAL STREET MANCHESTER, NH 03101			STACOVICI, STEFAN	
			ART UNIT	PAPER NUMBER

1732

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/033,437	RIHA ET AL.	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 1, 2004 has been entered.

Response to Amendment

2. Applicants' amendment filed April 1, 2004 has been entered. Claim 1 has been amended. No claims have been added. Claim 1 is pending in the instant application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 16, the limitation of "*a* switch" (emphasis added) is unclear as to whether this is the same or a different switch than the switch or switches recited on line 9.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Filion *et al.* (US Patent No. 5,952,630) in view of Filion *et al.* (US Patent No. 5,448,028) and in further view of Spanjer (US Patent No. 4,654,290).

Filion *et al.* ('630) teach the basic claimed process including, providing a thermoplastic PVC (polymer) outer skin (26b') formed by vacuum forming (thermoforming) (col. 5, lines 56-57), a foam layer (26b'') bonded to said skin, a substrate layer (22b) bonded to said foam layer (26b'') and at least one switch (30b) embedded in said foam layer (26b'') (see Figure 5 and, col. 3, lines 60-64; col. 5, lines 31-34 and lines 54-61). Further, Filion *et al.* ('630) specifically teach that *any* (emphasis added) suitable foam material may be used as taught in U.S. Patent No. 5,232,957, which is incorporated by reference (col. 6, lines 1-7), and as such, under MPEP §2163.07, Filion *et al.* ('630) teach a polyurethane foam. Furthermore, Filion *et al.* ('630) teach marking of said outer skin layer (see Figure 1).

Regarding claim 1, although Filion *et al.* ('630) teaches marking of said outer skin layer (see Figure 1), Filion *et al.* ('630) does not teach a process of marking said outer skin layer. Filion *et al.* ('028) teach a printing process for forming indicia (30) on a laminate including an outer skin (28), a foam layer (26) bonded to said skin, a substrate layer (24) bonded to said foam

layer (26) and at least one switch (20) embedded in said foam layer (26), said indicia overlying said embedded at least one switch (20) (see col. 2, line 67 through col. 3, line 23; col. 3, lines 37-61; col. 5, lines 29-43 and Figure 6). Further, Filion *et al.* ('028) teach that said markings are used to identify the switch visually (see col. 3, lines 37-40), hence identifying the position of the switch. Furthermore, it is noted that the limitation of "to indicate the position or function of a switch" is a functional limitation and recitation of the intended use of the claimed marking step must result in a structural difference between the claimed process and the prior art in order to patentably distinguish the claimed invention from the prior art.

Spanjer ('290) teaches that a polymeric material that includes a pigment die changes color upon interaction between said pigment die and a laser beam and forms a marking of a different color than the surrounding material (see col. 1, lines 52-60). Further, Spanjer ('290) teaches laser marking as a replacement for printing, hence teaching laser marking as an equivalent alternative to printing (see col. 1, lines 24-25). Furthermore, it is submitted that the polymeric material of Spanjer ('290) includes a skin layer in which the laser beam is focused in order for the inventions of Spanjer ('290) to function as described.

Therefore, it would have been obvious for one of ordinary skill to have provided a colored outer skin and have used a laser marking method as taught by Spanjer ('290) as an alternative to the printing process of Filion *et al.* ('028) to form indicia in the process of Filion *et al.* ('630) because, Filion *et al.* ('630) teaches marking of said outer skin layer and Spanjer ('290) teaches that laser marking and printing are equivalent alternatives and also because, laser marking provides a clearer and more durable marking, while eliminating the extra processing

step in the printing process of applying a clear coat over a printed mark. It should be noted that it is submitted that said outer skin is a colored outer skin in the process of Fillion *et al.* ('630) in view of Fillion *et al.* ('028) and in further view of Spanjer ('290) in order for said process to function as described.

Response to Arguments

7. Applicants' remarks filed April 1, 2004 have been considered.
8. Applicants argue that "Fillion '630 and/or Fillion '028 do not teach or suggest anything regarding the advantages, desirability, convenience or even hint at the opportunity to successfully project a laser beam to an outer skin surface in an area that overlies a switch" such that "it is not at all clear to Applicants...that one of ordinary skill in the art would look beyond Fillion to do something other than print" (see page 4 of the amendment filed April 1, 2004). In response, it is noted that:

(a) One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). It is the teachings of Spanjer ('290) that were used to show the "advantages, desirability, convenience" of replacing printing with laser marking;

(b) Under MPEP §2141.02, "[I]n determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the *claimed invention as a whole* would have been obvious"

(emphasis added). See Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); Schenck v. Nortron Corp., 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983);

(c) The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case:

(i) the primary reference, Filion *et al.* ('630), teaches providing a thermoplastic PVC (polymer) outer skin (26b') formed by vacuum forming (thermoforming) (col. 5, lines 56-57), a polyurethane foam layer (26b'') bonded to said skin, a substrate layer (22b) bonded to said foam layer (26b'') and at least one switch (30b) embedded in said foam layer (26b'') and, marking of said outer thermoplastic PVC skin layer (see Figure 1);

(ii) the secondary reference, Filion *et al.* ('028), teaches a printing process for forming indicia (30) on a laminate including an outer skin (28), a foam layer (26) bonded to said skin, a substrate layer (24) bonded to said foam layer (26) and at least one switch (20) embedded in said foam layer (26), said indicia overlying said embedded at least one switch (20);

(iii) the secondary reference, Spanjer ('290), teaches that a polymeric material that includes a pigment die changes color upon interaction between said pigment die and a laser beam and forms a marking of a different color than the surrounding material (see col. 1, lines 52-60). Further, Spanjer ('290) teaches laser marking an object as a replacement for printing, hence

teaching laser marking as an equivalent alternative to printing (see col. 1, lines 24-25). Furthermore, it is submitted that the polymeric material of Spanjer ('290) includes a skin layer in which the laser beam is focused in order for the inventions of Spanjer ('290) to function as described.

Therefore, it would have been obvious for one of ordinary skill to have provided a colored outer skin and have used a laser marking method as taught by Spanjer ('290) as an alternative to the printing process of Filion *et al.* ('028) to form indicia in the process of Filion *et al.* ('630) because, Filion *et al.* ('630) teaches marking of said outer skin layer and Spanjer ('290) teaches that laser marking and printing are equivalent alternatives and also because, laser marking provides a clearer and more durable marking, while eliminating the extra processing step in the printing process of applying a clear coat over a printed mark. It should be noted that it is submitted that said outer skin is a colored outer skin in the process of Filion *et al.* ('630) in view of Filion *et al.* ('028) and in further view of Spanjer ('290) in order for said process to function as described.

9. In response to applicant's argument that the teachings of Spanjer ('290) is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Filion *et al.* ('028) teaches printing as a method of marking an object with words or symbols for identification purposes. Spanjer ('290) teaches the use of a laser to mark an object with letters and numbers for

identification purposes. Hence, it is submitted that both references teach marking an object for identification purposes, hence both references are reasonably pertinent to the particular problem with which Applicant are concerned.

10. Applicants argue that one skilled in the art would not consider "laser marking as an equivalent to printing" because such a holding would "suggest that at some future point in time, this very document would be exposed to a laser and undergo a color change, in order to create a text" (see page 5 of the amendment filed April 1, 2004). In response, it is noted that:

(a) the equivalence of printing and laser marking, as related to the instant application, is limited to marking of an object with letters, numbers, words, symbols for identification purposes and not directed toward a broader application of laser marking, such as writing entire documents, as Applicants appear to suggest. Arguments regarding future inventions are speculative at best and do not constitute evidence;

(b) under MPEP §2144.06, "[I]n order to rely on equivalence as a rationale supporting an obviousness rejection, the equivalency must be *recognized in the prior art*" (emphasis added). As shown throughout prosecution of the instant application, Spanjer ('290) specifically teaches in column 1, lines 24-25 that laser marking is a replacement for printing, hence teaching laser marking as an equivalent alternative to printing.

11. Applicants' argue that the "material which contacts the electrical device (switch) and which amounts to polyurethane foam, is not itself marked nor need it contain 1%-5% TiO₂" (see page 6 of the amendment filed April 1, 2004). In response, it is noted that:

(a) the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993);

(b) under MPEP §2111.03, the “transitional term ‘comprising’...is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

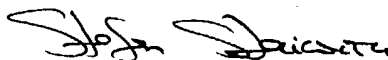
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael P. Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 1732

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD



Primary Examiner

5/8/04

AU 1732

May 8, 2004